AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions and listings of the claims in this application:

1. (Currently Amended) A method of operating a surgical burr during performance of an orthopaedic procedure, the method comprising the steps of:

determining position of the surgical burr and generating ~~an electronic~~ a machine-generated output signal in response thereto,

generating a cue to a user of the surgical burr in response to generation of the ~~electronic~~ machine-generated output signal, and

adjusting operation of the surgical burr in response to generation of the ~~electronic~~ machine-generated output signal.

2. (Original) The method of claim 1, wherein the adjusting step comprises adjusting speed of the surgical burr.

3. (Original) The method of claim 1, wherein the adjusting step comprises increasing speed of the surgical burr.

4. (Original) The method of claim 1, wherein the adjusting step comprises decreasing speed of the surgical burr.

5. (Original) The method of claim 1, wherein the determining step comprises determining position of the surgical burr relative to an anatomical feature of a patient.

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6. (Original) The method of claim 1, wherein the determining step comprises determining position of the surgical burr relative to a predetermined boundary around an anatomical feature.

7. (Original) The method of claim 6, wherein the adjusting step comprises increasing speed of the surgical burr if the surgical burr is positioned within the predetermined boundary.

8. (Original) The method of claim 6, wherein the adjusting step comprises decreasing speed of the surgical burr if the surgical burr is positioned outside of the predetermined boundary.

9. (Previously Presented) An orthopaedic surgical system, comprising:

a surgical burr,

a surgical navigation system operable to determine position of the surgical burr during an orthopaedic procedure,

a processor electrically coupled to both the surgical burr and the surgical navigation system, and

a memory device electrically coupled to the processor, the memory device having stored therein a plurality of instructions which, when executed by the processor, cause the processor to:

(a) communicate with the surgical navigation system to determine position of the surgical burr and generate an output signal in response thereto,

(b) adjust operation of the surgical burr in response to generation of the output signal, and

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(c) generate a cue on the surgical burr in response to generation of the output signal.

10. (Original) The orthopaedic surgical system of claim 9, wherein the plurality of instructions, when executed by the processor, further cause the processor to adjust the speed of the surgical burr in response to generation of the output signal.

11. (Original) The orthopaedic surgical system of claim 9, wherein the plurality of instructions, when executed by the processor, further cause the processor to increase the speed of the surgical burr in response to generation of the output signal.

12. (Original) The orthopaedic surgical system of claim 9, wherein the plurality of instructions, when executed by the processor, further cause the processor to decrease the speed of the surgical burr in response to generation of the output signal.

13. (Original) The orthopaedic surgical system of claim 9, wherein the plurality of instructions, when executed by the processor, further cause the processor to determine the position of the surgical burr relative to an anatomical feature of a patient.

14. (Original) The orthopaedic surgical system of claim 9, wherein the plurality of instructions, when executed by the processor, further cause the processor to determine the position of the surgical burr relative to a predetermined boundary around an anatomical feature.

15. (Original) The orthopaedic surgical system of claim 14, wherein the plurality of instructions, when executed by the processor, further cause the processor to

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increase the speed of the surgical burr if the surgical burr is positioned within the predetermined boundary.

16. (Original) The orthopaedic surgical system of claim 14, wherein the plurality of instructions, when executed by the processor, further cause the processor to decrease the speed of the surgical burr if the surgical burr is positioned outside of the predetermined boundary.

17. (Currently Amended) An orthopaedic surgical system, comprising:

a surgical burr,

a surgical navigation system operable to determine position of the surgical burr during an orthopaedic procedure,

a controller configured to ~~adjust operation~~ control speed of the surgical burr based on output from the surgical navigation system, and

a display monitor configured to display a visual indication of the position of the surgical burr during the orthopaedic procedure.

18. (Cancelled)

19. (Cancelled)

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20. (Currently Amended) A method of operating a surgical burr during performance of an orthopaedic procedure, the method comprising the steps of:

determining position of the surgical burr relative to a predetermined boundary of a bone feature to be removed and generating ~~an~~ a machine-generated output signal in response thereto,

generating a cue to a user of the surgical burr in response to generation of the machine-generated output signal, and

adjusting operation of the surgical burr in response to generation of the machine-generated output signal.

21. (Original) The method of claim 20, wherein the adjusting step comprises adjusting speed of the surgical burr.

22. (Original) The method of claim 20, wherein the adjusting step comprises increasing speed of the surgical burr.

23. (Original) The method of claim 20, wherein the adjusting step comprises decreasing speed of the surgical burr.

24. (Original) The method of claim 20, wherein the adjusting step comprises increasing speed of the surgical burr if the surgical burr is positioned within the predetermined boundary.

25. (Original) The method of claim 20, wherein the adjusting step comprises decreasing speed of the surgical burr if the surgical burr is positioned outside of the predetermined boundary.

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26. (Previously Presented) The method of claim 1, wherein the generating step comprises generating a visual cue to the user of the surgical burr.

27. (Previously Presented) The method of claim 1, wherein the generating step comprises generating an audio cue to the user of the surgical burr.

28. (Previously Presented) The orthopaedic surgical system of claim 9, wherein the plurality of instructions, when executed by the processor, further cause the processor to generate a visual cue on the surgical burr in response to generation of the output signal.

29. (Previously Presented) The orthopaedic surgical system of claim 9, wherein the plurality of instructions, when executed by the processor, further cause the processor to generate an audio cue on the surgical burr in response to generation of the output signal.

30. (Previously Presented) The method of claim 20, wherein the generating step comprises generating a visual cue to the user of the surgical burr.

31. (Previously Presented) The method of claim 20, wherein the generating step comprises generating an audio cue to the user of the surgical burr.

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